

Remarks/Arguments

Claims 1-4 are currently pending in the subject application, and are presently under consideration. New claim 19 has been added by this amendment.

Reconsideration of the above-identified patent application in view of the following amendments and remarks is respectfully requested for at least the following reasons.

Claims 1-4 of the present application stand rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent Pub. No. 2002/0185446 to Johnny ("Johnny"). Withdrawal of this rejection is respectfully requested for at least the following reasons.

Claim 1 recites a control assembly for an electrocoagulation cell comprising a plurality of electrodes. Releasable connection means are included between at least a selection of the electrodes. The connection means includes an elongate busbar which is arranged normal to respective top edges of each electrode in plan view and above the top edges. The elongate busbar extends through a notch, slot or aperture located in individual tabs which each extend upwardly from an adjacent top edge of each electrode. The busbar is spaced from the top edges of each electrode so as to avoid contact with liquid contained in the electrocoagulation cell in use as well as a plurality of fasteners attached to the busbar whereby each fastener abuts or is located closely adjacent to an adjoining surface of each electrode. Electrical connection means are attached to the busbar at each end thereof. The electrical connection means is connectable to a power supply.

Johnny does not anticipate claim 1. Johnny does not disclose releasable connection means between at least a selection of electrodes comprising an elongate

busbar which is arranged normal to respective top edges of each electrode in plan view and above the top edges, as recited in claim 1. In rejecting claim 1, the Office Action contends that electrical connectors 30 and 32 read on the busbar recited in claim 1 (See Office Action, Page 2). Applicant respectfully disagrees. In contrast to the busbar recited in claim 1, the electrical connectors 30 and 32 disclosed in Johnny are not above top edges of electrodes. Instead, the electrical connectors 30 and 32 disclosed in Johnny appear to extend through apertures located in a body (i.e., interior) of the electrode plate 42, conducting spacers 36 and insulating spacers 37 (See Johnny, Par. [0076] and FIG. 8).

The Office Action contends that "the connections above the top edges of an electrode is a functional design choice irrelevant to the claimed structure of the apparatus claim" (See Office Action, Page 2). Anticipation by a single reference requires that the single prior art reference disclose each and every element of the claimed invention, arranged as in the claim. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730, F.2d 1452, 1458, 221 U.S.P.Q. 481, 485 (Fed. Cir. 1984). Applicant respectfully submits that whether or not an element is a functional design choice is irrelevant for purposes of an anticipation rejection, such as the rejection proffered in the Office Action. "Design choice" is related to an obviousness-type rejection. See e.g., *In re Chu* 66 F.3d 292, 298, 35 U.S.P.Q.2d 1089 (Fed. Cir. 1995). Thus, Johnny does not disclose the elongate busbar recited in claim 1.

Furthermore, even assuming *arguendo* that the Office Action had rejected claim 1 under an obviousness-type rejection, Applicant respectfully submits that an

elongate busbar arranged normal to respective top edges of each electrode in plan view and above the top edges, as recited in claim 1, is not a matter of design choice. As shown in FIGS. 3a-3b of the Specification, arranging a busbar above the edges of electrodes 2 provides for easy lifting of the entire electrode assembly 6 from an electrocoagulation cell, which in turn can provide for efficient maintenance of the electrode assembly 6 and/or the electrocoagulation cell. Specifically, once removed, the electrode assembly 6 can be cleaned, inspected in a maintenance check, and reinserted into the electrocoagulation cell. Alternatively, a different electrode assembly 6 could be inserted into the electrocoagulation cell as well.

In contrast to the electrocoagulation cell recited in claim 1, in Johnny, it would be necessary to provide an insulation panel 40 which has holes extending there through for the electrical connectors 30 and 32. Additionally, it would be necessary to remove the fasteners 46 for removal of the insulation panel 40 before the assembly of caps 48, spacers 36 and 37, nuts 38 and threaded electrical connectors 30 and 32 can be removed so that electrodes 42, 43 and 45 could be subjected to maintenance and/or cleaning (See Johnny, FIG. 8). Moreover, in FIG. 8 of Johnny, it is evident that top edges of each of the electrodes 42, 43 and 44 located in a top end panel 45 and at each alternative end of the plates have apertures 50 for allowing flow of wastewater in a serpentine fashion. Thus, an elongate busbar arranged normal to respective top edges of each electrode in plan view and above the top edges, as recited in claim 1, is not a matter of design choice.

Moreover, the busbar recited in claim 1 extends through a notch, slot or aperture located in individual tabs that extend upwardly from an adjacent top edge of

each electrode. In rejecting claim 1, the Office Action fails to cite any structure or process that reads on the notch, slot or aperture located in individual tabs (through which the busbar extends) recited in claim 1. Applicant respectfully submits this is because nothing in Johnny discloses this feature of claim 1. In particular, electrodes 42 and 43 do not include a notch, slot or aperture, in contrast to the individual tabs that extend upwardly from an adjacent top edge of an electrode, as recited in claim 1.

The Office Action states that electrical connectors 30 and 32 extend in a horizontal direction through an aperture of an electrocoagulation reactor 4, wherein each electrode plate/anode 42 forms its own normal to the electrical connectors 30 and 32, and thus individual tabs are created from the space between each parallel anode normal to the electrical connectors 30 and 32 (See Office Action, Page 4). Applicant cannot understand the point the Office Action is attempting to make. Applicant appreciates that electrical connectors 30 and 32 extend through apertures in insulation panels 40 and the electrocoagulation reactor 4. Applicant notes that FIG. 8 of Johnny depicts anodes with apertures 50 that provide flow passages for wastewater (See Johnny, Par. [0076]). However, there is still no disclosure in Johnny that reads on individual tabs extending upwardly from an adjacent top edge of each electrode, as recited in claim 1. Thus, Johnny does not disclose the individual tabs recited in claim 1.

For the reasons stated above, Johnny does not disclose the releasable connection means recited in claim 1. Therefore, Johnny fails to disclose each and

every element of claim 1. Accordingly, Jonny does not anticipate claim 1, and consequently, claim 1 is patentable.

Claims 2-4 depend either directly or indirectly from claim 1 and are not anticipated by the cited art for at least the same reasons as claim 1, and for the specific elements recited therein. Accordingly, claims 2-4 are patentable.

New claim 19 has been added by this amendment. New claim 19 recites a control assembly for an electrocoagulation cell. A plurality of electrodes forming both at least positive electrodes and negative electrodes are included. A releasable connection means between at least a selection of the electrodes is included. The releasable connection means include a first elongate busbar and a second elongate busbar. Both the first elongate busbar and the second elongate busbar are arranged normal to respective top edges of each electrode in plan view and extend above the top edges. There is provided a first notch, slot or aperture located in first tabs which each extend upwardly from an adjacent top edge of each positive electrode for supporting the first elongate busbar. There is also provided a second notch, slot or aperture located in second tabs which each extend upwardly from an adjacent top edge of each negative electrode for supporting the second elongate busbar. Both the first elongate busbar and the second elongate busbar are spaced from the top edges of each electrode so as to avoid contact with liquid contained in the electrocoagulation cell in use as well as a plurality of fasteners attached to each busbar. In plan view, each of the first and second elongate busbars are substantially parallel to each other. Each fastener abuts or is located closely adjacent to an adjoining surface of each electrode and whereby each of the first tabs and each of

the second tabs have a staggered formation or are offset from each other. Electrical connection means are included and attached to both the first and second busbars at each end thereof which in use is connectable to a power supply. New claim 19 is supported by at least FIGS. 3a-3d and page 7, line 13-page 8, line 22 of the Specification.

Johnny fails to disclose or suggest first and second busbars arranged normal to respective top edges of each electrode in plan view and located above top edges, as recited in new claim 19. Johnny also fails to disclose or suggest an array of first and second notches, slots or apertures for supporting a first elongate busbar and a second elongate busbar, as recited in new claim 19. Johnny further fails to disclose or suggest that each of the notches, slots or apertures recited in new claim 19 are located in a number of first tabs that extend upwardly from an adjacent top edge of each positive electrode. Johnny still further fails to disclose or suggest each of the second notches recited in new claim 19 are located in a number of second tabs which extend upwardly from an adjacent top edge of each negative electrode. Yet further, Johnny fails to disclose or suggest that each of the first and second elongate busbars are spaced from respective top edges of each positive electrode and each negative electrode respectively to avoid contact with liquid contained in the electrocoagulation cell in use, as recited in new claim 19. Yet further still, Johnny fails to disclose or suggest that each of the first tabs and the second tabs are offset from each other or have a staggered formation in plan view, as recited in new claim 19. Accordingly, Johnny does not anticipate new claim 19 or make new claim 19 obvious. Therefore, new claim 19 is patentable.

In view of the foregoing, it is respectfully submitted that the above-identified patent application is in condition for allowance, and allowance of the above-identified patent application is respectfully requested.

Please charge any deficiency or credit any overpayment in the fees for this amendment to our Deposit Account No. 20-0090.

Respectfully submitted,

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